

|    | A           | B               | C                    | D                         |
|----|-------------|-----------------|----------------------|---------------------------|
| 1  |             |                 |                      |                           |
| 2  | <b>Date</b> | <b>Patients</b> | <b>Nursing Staff</b> | <b>Patients per Nurse</b> |
| 3  | 01/05/2007  | 24              | 5                    | 4.8                       |
| 4  | 02/05/2007  | 16              | 5                    | 3.2                       |
| 5  | 03/05/2007  | 21              | 3                    | 7                         |
| 6  | 04/05/2007  | 17              | 0                    | #DIV/0!                   |
| 7  | 05/05/2007  | 18              | 4                    | 4.5                       |
| 8  | 06/05/2007  | 17              |                      | #DIV/0!                   |
| 9  | 07/05/2007  | 19              | 5                    | 3.8                       |
| 10 | 08/05/2007  | 22              | 4                    | 5.5                       |
| 11 | 09/05/2007  | 21              | 4                    | 5.25                      |
| 12 | 10/05/2007  | 18              | 3                    | 6                         |
| 13 | 11/05/2007  | 19              | 4                    | 4.75                      |

Figure 238: Examples of #DIV/0!, division by zero error

It is very common to find an error such as this arising from a situation where data was not reported or reported incorrectly. When such an occurrence is possible, an IF function can be used to display the data correctly. The formula `=IF(C3>0, B3/C3, "No Report")` can be entered. The formula is then copied over the remainder of column D. The meaning of this formula roughly would be: "If C3 is greater than 0, then compute B3 divided by C3, otherwise enter 'No Report'". An example is shown in Figure 239.

It is also possible for the last parameter to use double quotes for a blank (no value) to be entered, or a different formula with a standardized number being substituted for the lower number.

|    | A           | B               | C                    | D                           | E |
|----|-------------|-----------------|----------------------|-----------------------------|---|
| 1  |             |                 |                      |                             |   |
| 2  | <b>Date</b> | <b>Patients</b> | <b>Nursing Staff</b> | <b>Patients per Nurse</b>   |   |
| 3  | 01/05/2007  | 24              | 5                    | =IF(C3>0,B3/C3,"No Report") |   |
| 4  | 02/05/2007  | 16              | 5                    | 3.2                         |   |
| 5  | 03/05/2007  | 21              | 3                    | 7                           |   |
| 6  | 04/05/2007  | 17              | 0                    | No Report                   |   |
| 7  | 05/05/2007  | 18              | 4                    | 4.5                         |   |
| 8  | 06/05/2007  | 17              |                      | No Report                   |   |
| 9  | 07/05/2007  | 19              | 5                    | 3.8                         |   |
| 10 | 08/05/2007  | 22              | 4                    | 5.5                         |   |
| 11 | 09/05/2007  | 21              | 4                    | 5.25                        |   |

Figure 239: Division by zero solution

### #VALUE! no result and #REF! incorrect references

The #VALUE! error is also very common.

A common occurrence of this error arises when a cell contains an incorrect value type. In the example of Figure 240, text "None" has been entered in C8, where our formula in column D is expecting a number.

|   | A           | B               | C                    | D                         |
|---|-------------|-----------------|----------------------|---------------------------|
| 1 |             |                 |                      |                           |
| 2 | <b>Date</b> | <b>Patients</b> | <b>Nursing Staff</b> | <b>Patients per Nurse</b> |
| 3 | 01/05/2007  | 24              | 5                    | 4.8                       |
| 4 | 02/05/2007  | 16              | 5                    | 3.2                       |
| 5 | 03/05/2007  | 21              | 3                    | 7                         |
| 6 | 04/05/2007  | 17              | 0                    | No Report                 |
| 7 | 05/05/2007  | 18              | 4                    | 4.5                       |
| 8 | 06/05/2007  | 17              | None                 | #VALUE!                   |
| 9 | 07/05/2007  | 19              | 5                    | 3.8                       |

Figure 240: Incorrect entry causing #VALUE! error